Claims

1-11. (canceled)

12. (currently amended) A method for identifying an agent that inhibits T lymphocyte development, the method comprising:

(a) assaying inositol 1,4,5-trisphosphate 3-kinase B (IP3KB) kinase activity in the presence of a test agent, or assaying the level of IP3KB polypeptide or IP3KB gene expression in a cell in the presence of a test agent;

(b) identifying one or more agents that inhibit IP3KB kinase activity, or that inhibit the level of IP3KB polypeptide or IP3KB gene expression in the cell ~~a cellular level or kinase activity of IP3KB~~; and

(c) testing said one or more agents for ability to inhibit T lymphocyte development at the double positive stage; thereby identifying an agent that inhibits the production of mature T lymphocyte.

13. (canceled)

14. (currently amended) The method of claim 12, wherein said one or more agents identified in step (b) inhibit IP3KB kinase activity ~~of the IP3KB~~.

15. (Previously presented) The method of claim 14, wherein the kinase activity is to catalyze conversion of inositol 1,4,5-triphosphate (IP3) to inositol 1,3,4,5-tetrakisphosphate (IP4).

16. (Previously presented) The method of claim 12, wherein said one or more agents identified in step (b) are tested for ability to inhibit $CD4^+$ $CD8^+$ T cell development into $CD4^+$ or $CD8^+$ T cells.

17-27. (canceled)

28. (Previously presented) The method of claim 12, wherein the IP3KB has an amino acid sequence of Accession No. CAB65055, Accession No. CAC40660, Accession No. NP_002212 or SEQ ID NO: 1.

29. (Previously presented) The method of claim 12, wherein the IP3KB is encoded by a polynucleotide having a nucleotide sequence of SEQ ID NO: 2, 3, or 4.

30. (currently amended) The method of claim 12, wherein said one or more agents identified in step (b) inhibit the level of IP3KB polypeptide in the cell ~~decrease the cellular level of IP3KB in a cell~~.

31. (Previously presented) The method of claim 30, wherein the cell is selected from the group consisting of thymus cell, $CD4^+$ $CD8^+$ T cell, $CD4^+$ T cell, $CD8^+$ T cell, and NK cell.

32. (currently amended) The method of claim 30, wherein said one or more agents identified in step (b) inhibit the level of IP3KB gene expression in the cell ~~of a gene encoding IP3KB~~.

33-38. (Cancelled)

39. (previously presented) The method of claim 12, wherein step c) comprises testing said one or more agents for ability to inhibit T lymphocyte development *in vivo* or *in vitro*.

40. (new) The method of claim 39, wherein step c) comprises testing said one or more agents for ability to inhibit T lymphocyte development in a non-human animal harboring IP3KB.

41. (new) The method of claim 41, wherein said non-human animal is a transgenic mouse.